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Terms	Documents
L5 and rate near execution	27

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L6

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result set

DB=USPT; PLUR=NO; OP=OR

<u>L6</u>	L5 and rate near execution	27	<u>L6</u>
<u>L5</u>	L4 and object	1316	<u>L5</u>
<u>L4</u>	L1 AND rate AND execution	1891	<u>L4</u>
<u>L3</u>	L1 and rate adj of adj speed	0	<u>L3</u>
<u>L2</u>	L1 AND execution ADJ rate	29	<u>L2</u>

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 |700/11 |700/12 |700/13 |700/14 |700/15 |700/16 |700/17 |700/18  
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 |700/27 |700/28 |700/29 |700/30 |700/31 |700/32 |700/33 |700/34  
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|700/302 |700/303 |700/304 |700/305 |700/306 )!.CCLS. )

END OF SEARCH HISTORY

## CLASS 700 DATA PROCESSING: GENERIC CONTROL SYSTEMS OR SPECIFIC APPLICATIONS

### 1 GENERIC CONTROL SYSTEM, APPARATUS OR PROCESS

- 2 . Plural processors —✓
- 3 .. Master-slave
- 4 .. Parallel
- 5 ... Shared memory
- 6 .. Hybrid types (analog, digital)
- 7 .. Including sequence or logic processor
- 8 . Cascade control
- 9 . Supervisory control
- 10 .. Of analog controllers
- 11 . Sequential or selective
- 12 .. State of condition or parameter (e.g., on/off)
- 13 ... Position responsive
- 14 ... Time responsive (duration)
- 15 .... Having display
- 16 .... Clock-calendar (e.g., time of day)
- 17 .. Operator interface (e.g., display with control)
- 18 ... Specific programming (e.g., relay or ladder logic)
- 19 .. Plural controlled systems, mechanisms, or elements
- 20 .. Plural controllers
- 21 .. Failure protection or reliability
- 22 .. Electrical power distribution
- 23 .. Sequence program response
- 24 ... Addressing
- 25 ... I/O table
- 26 ... Diagnostics or debugging
- 27 ... Having status indication
- 28 . Optimization or adaptive control
- 29 .. Having model
- 30 ... Comparison with model (e.g., model reference)
- 31 ... Having adjustment of model (e.g., update)
- 32 .. Specific criteria of system performance
- 33 ... Constraint or limit (e.g., max/min)
- 34 .... Variable
- 35 .... Bidirectional (e.g., oscillatory)
- 36 .... Economic (e.g., cost)
- 37 ... Gain (e.g., tuning)
- 38 .. Having perturbation
- 39 ... Test signal
- 40 .. Plural modes
- 41 ... Proportional-Integral (P-I)

) No parameter state chart 7/17/100

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100 / 259  
182  
2  
97  
98  
169  
159

- 42 . . . . Proportional-Integral-Derivative (P-I-D)
- 43 . . . Proportional-Derivative (P-D)
- 44 . . Feed-forward (e.g., predictive)
- 45 . . . Combined with feedback
- 46 . . Rate control
- 47 . . Trainable system (e.g., self-learning, self-organizing)
- 48 . . . Neural network
- 49 . . Expert system
- 50 . . Fuzzy logic
- 51 . . Statistical process control (SPC)
- 52 . . Parameter estimation or identification
- 53 . . Multiple input-multiple output (MIMO) system feature (e.g., decoupling)
- 54 . . Having particular compensation or stabilization feature
- 55 . . . Filtering
- 56 . Digital positioning (other than machine tool)
- 57 . . Alignment or registration
- 58 . . . Having position marking
- 59 . . . Having optical sensing (e.g., image projection)
- 60 . . Support positioning (e.g., table, stage)
- 61 . . Multiple axis motion or path control
- 62 . . . Orientation (e.g., posture, pose)
- 63 . . . Including velocity or acceleration control
- 64 . . . Position recording
- 65 . . Operator control of remotely located element
- 66 . . Having particular position determining apparatus (e.g., portable or handheld)
- 67 . Plural variables
- 68 . . Ratio
- 69 . . Positional (e.g., velocity, acceleration)
- 70 . . . Positional with nonpositional
- 71 . Specific compensation or stabilization feature
- 72 . . Lag (e.g., deadtime)
- 73 . Sampled data system
- 74 . . Variable rate
- 75 . Multiple modes (e.g., digital/analog)
- 76 . . Manual/automatic
- 77 . . Fine/coarse
- 78 . Having specific error signal generation (e.g., up/down counter)
- 79 . Having protection or reliability feature
- 80 . . Warning or alarm
- 81 . . Self-test
- 82 . . Backup/standby
- 83 . Having operator control interface (e.g., control/display console)
- 84 . . Keyboard
- 85 . . Positional (e.g., joystick)
- 86 . Having preparation of program

- 87 . . Editing/modifying
- 88 . . Playback
- 89 . Having specific algorithm
- 90 **SPECIFIC APPLICATION, APPARATUS OR PROCESS**
- 91 . Contest or contestant analysis, management, or monitoring (e.g., statistical analysis, handicapping, scoring)
- 92 . . Scoring
- 93 . . Probability determination or handicapping
- 94 . Digital audio data processing system
- 95 . Product assembly or manufacturing
- 96 . . Integrated system (Computer Integrated Manufacturing (CIM))
- 97 . . Design or planning
- 98 . . . 3-D product design (e.g., solid modeling)
- 99 . . . Resource allocation
- 100 . . . . Job scheduling
- 101 . . . . . Priority ordering
- 102 . . . . . Job release determination
- 103 . . Constraints or rules
- 104 . . . Knowledge based (e.g., expert system)
- 105 . . Rework or engineering change
- 106 . . Material requirement
- 107 . . . Bill of material
- 108 . . Performance monitoring
- 109 . . Quality control
- 110 . . . Defect analysis or recognition
- 111 . . Worker or work station efficiency
- 112 . . Having particular work transport control between manufacturing stations
- 113 . . Mobile transport
- 114 . . Work positioning
- 115 . . Product tracking (e.g., having product or carrier identification)
- 116 . . . Having identification controlled manufacturing operation
- 117 . . Particular manufactured product or operation
- 118 . . Three-dimensional product forming
- 119 . . . . Rapid prototyping (e.g., layer-by-layer, material deposition)
- 120 . . . . . Stereolithography
- 121 . . . Integrated circuit production or semiconductor fabrication
- 122 . . . Continuous material having indeterminate length (e.g., web, strand, strip, or sheet)
- 123 . . . . Material deposition or application (e.g., spraying, coating)
- 124 . . . . . Registration control
- 125 . . . . . Having a reference mark or pattern
- 126 . . . . Winding
- 127 . . . . Sheet making (e.g., paper product)

- 128 . . . . . Paper machine or subsystem control
- 129 . . . . . Profile analyzer or controller
- 130 . . . Textile
- 131 . . . . . Pattern design
- 132 . . . . . For a garment
- 133 . . . . . Having particular pattern producing operation (e.g., dyeing)
- 134 . . . . . Pattern cutting
- 135 . . . . . Pattern matching or positioning
- 136 . . . . . Sewing
- 137 . . . . . Having particular input data (e.g., stitch)
- 138 . . . . . Embroidering
- 139 . . . . . Spinning or winding (e.g., yarn)
- 140 . . . . . Loom control
- 141 . . . . . Knitting
- 142 . . . . . Fiber preparation
- 143 . . . . . Having monitoring or inspecting (e.g., abnormality detection)
- 144 . . . . . Yarn quality
- 145 . . . Metal
- 146 . . . . . Casting or drawing
- 147 . . . . . Control of metallurgical property
- 148 . . . . . Rolling
- 149 . . . . . Having schedule adjustment
- 150 . . . . . Control or detection of a particular condition
- 151 . . . . . Speed control
- 152 . . . . . Tension control (e.g., interstrand)
- 153 . . . . . Temperature control
- 154 . . . . . Flatness or crown control
- 155 . . . . . Thickness control
- 156 . . . . . Roll eccentricity compensation
- 157 . . . Glassware forming
- 158 . . . . . IS (individual section) machine
- 159 . . . Machining
- 160 . . . . . Having particular tool or tool operation
- 161 . . . . . Tracing or duplicating
- 162 . . . . . Electrical discharge machining (EDM)
- 163 . . . . . 3-D sculpturing using nontracing prototype sensor
- 164 . . . . . Grinding
- 165 . . . . . Bending (e.g., press brake)
- 166 . . . . . Laser
- 167 . . . . . Of elongated material (e.g., timber, veneer, web)
- 168 . . . . . Portable (e.g., handheld)
- 169 . . . . . Supervisory control (e.g., plural tools or plural processors)
- 170 . . . . . Having particular control of a motor parameter
- 171 . . . . . Material usage optimization
- 172 . . . . . Multiple mode (e.g., rough-finish, coarse-fine)

— Supervisory not  
in terms of  
program?

173 . . . . Adaptive (optimizing) system  
174 . . . . Performance monitoring  
175 . . . . . Condition of tool or workpiece (e.g.,  
tolerance, tool wear)  
176 . . . . . Offsetting  
177 . . . . . Protective or diagnostic feature  
178 . . . . . Tool/workpiece interference prevention  
179 . . . . Tool selection/change  
180 . . . . Having operator interface feature  
181 . . . . . Specific programming format (e.g., macro)  
182 . . . . . Including CAD, CAM, or CIM technique  
183 . . . . . Preset pattern  
184 . . . . . Machining path display  
185 . . . . . Prompting technique  
186 . . . . Digital positioning technique  
187 . . . . . For curve or contour  
188 . . . . . Including velocity or acceleration control  
189 . . . . . Interpolation  
190 . . . . . Specified tool feed path at entry or  
withdrawal  
191 . . . . . Repeated machining passes  
192 . . . . . Alignment of tool or workpiece (e.g., origin  
or path return)  
193 . . . . . Positional compensation or modification  
compensation or mod  
194 . . . . Coordinate transformation technique  
195 . . . . Having particular measuring device (e.g.,  
probe).  
196 . . . Extruding  
197 . . . Molding  
198 . . . . Control of curing  
199 . . . . . Vulcanization  
200 . . . . Injection  
201 . . . . . Plural molding machines or stations  
202 . . . . . Control of temperature  
203 . . . . . Control of pressure  
204 . . . . Monitoring, inspection, or control of a  
particular condition  
205 . . . . . Control of temperature  
206 . . . Pressing  
207 . . . Heating  
208 . . . . Drying  
209 . . . . Furnace  
210 . . . . . Multizone  
211 . . . . Oven  
212 . . . . Sintering, soldering, or bonding  
213 . . Article handling  
214 . . . Article storing, retrieval, or arrangement (e.g.,  
warehousing, automated library)  
215 . . . Having an identification code  
216 . . . Order filling

- 217 . . . Article support load management (e.g.,  
palletizing)
- 218 . . . Particular charging or discharging apparatus
- 219 . . Associating or disassociating plural articles
- 220 . . . Inserting
- 221 . . . . Having an identification code
- 222 . . . . . Monitoring or inspection (e.g., incomplete  
assembly)
- 223 . . . Collating or sorting
- 224 . . . . Having an identification code
- 225 . . Having an identification code
- 226 . . . Identification code determines article  
destination
- 227 . . . . Preparation of an article for an identification  
code (e.g., printing, encoding)
- 228 . . Having particular transport between article  
handling stations
- 229 . . . Transport position identification
- 230 . . . Having a conveyor
- 231 . . Dispensing or vending
- 232 . . . Operator or payment initiated
- 233 . . . . Customized dispensed article (e.g., operator  
design)
- 234 . . . . Demonstration or duplication of article (e.g.,  
software, video)
- 235 . . . . Printing on or of dispensed or vended article
- 236 . . . . Data collection or reporting (e.g., sales,  
inventory)
- 237 . . . . Authorization (e.g., password, time usage  
limit, personal identification number (PIN))
- 238 . . . . Price adjustment
- 239 . . . Blending or mixing
- 240 . . . Condition controlled dispensing (e.g., weight or  
volume)
- 241 . . . Central control of plural dispensing units
- 242 . . . Particular supply arrangement (e.g., plural  
sources or compartments)
- 243 . . . . Movable (e.g., rotatable)
- 244 . . . Monitoring or inspection
- 245 . . Robot control
- 246 . . Combined with knowledge processing (e.g.,  
natural language system)
- 247 . . Plural controlled devices or plural nonvision  
controlling devices
- 248 . . . Plural robots
- 249 . . . Plural processors
- 250 . . Specific enhancing or modifying technique (e.g.,  
adaptive control)
- 251 . . . Coordinate transformation
- 252 . . . Interpolation
- 253 . . . Programmed data (e.g., path) modified by  
sensed data



254 . . . Compensation or calibration  
255 . . . Collision prevention  
256 . . . Overload prevention  
257 . . . Based on user input  
258 . . Having particular sensor  
259 . . . Vision sensor (e.g., camera, photocell)  
260 . . Having control of force  
261 . . . Having control of robot torque  
262 . . Using particular manipulator orientation  
    computation (e.g., vector/matrix calculation)  
263 . . . Using Jacobian computation  
264 . . Having particular operator interface (e.g.,  
    teaching box, digitizer, tablet, pendant, dummy arm)  
265 . Nonreactive mixing process (e.g., mixing cement,  
    preparing solution, diluting chemical)  
266 . Chemical process control or monitoring system  
267 . . Titration or pH level  
268 . . Synthesis process  
269 . . . Polymerization/trimerization  
270 . . Distillation  
271 . . Refinement or purification or rejuvenation  
272 . . . Of fuel  
273 . . Separation process  
274 . . Control of combustion or heating apparatus  
    (e.g., kiln, furnace, autoclave, burner, combustion  
    system)  
275 . Mechanical control system  
276 . . HVAC control  
277 . . . Multiple zones  
278 . . . Specific thermally responsive controller  
279 . . Balancing or alignment  
280 . . Vibration or acoustic noise control  
281 . . Control of fluid level or volume  
282 . . Flow control (e.g., valve or pump control)  
283 . . . Dispensing management (e.g., spraying)  
284 . . . . Irrigation  
285 . . . Fluid mixing  
286 . Electrical power generation or distribution system  
287 . . Turbine or generator control  
288 . . . Cogenerative system  
289 . . . Adaptive valve control  
290 . . . . For turbine speed control  
291 . . Energy consumption or demand prediction or  
    estimation  
292 . . System protection (e.g., circuit interrupter,  
    circuit limiter, voltage suppressor)  
293 . . . Abnormal power, current, or impedance  
    condition  
294 . . . Abnormal phase, waveform, or polarity  
    condition

- 295 . . Power allocation management (e.g., load adding/shedding)
- 296 . . . Time based control (e.g., real time or duty cycle)
- 297 . . Power supply regulation operation
- 298 . . . By voltage regulation
- 299 . Specific application of temperature responsive control system
- 300 . . For heating or cooling
- 301 . Specific application of pressure responsive control system
- 302 . Specific application of positional responsive control system
- 303 . Specific application of dimensional responsive control system
- 304 . Specific application of speed responsive control system
- 305 . Specific application of weight responsive control system
- 306 . Specific application of control based on elapsed time

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- FOR 102 **OPTIMIZATION OR ADAPTIVE DATA PROCESSING CONTROL SYSTEM, METHOD, OR APPARATUS (364/148)**
- FOR 103 **DIGITAL POSITIONING (OTHER THAN MACHINE TOOL) CONTROL SYSTEM, METHOD, OR APPARATUS (364/167.01)**
- FOR 104 **GAME OR AMUSEMENT (364/410)**
- FOR 105 . Scoring (364/411)
- FOR 106 . Wagering (364/412)

## WEST Search History

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result set

*DB=USPT; PLUR=NO; OP=OR*

L3	L2 AND (object ADJ oriented OR Object-oriented)	20	L3
L2	L1 AND control ADJ system	661	L2
L1	gordon.xp. OR gordon.xa.	3046	L1

END OF SEARCH HISTORY

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Terms	Documents
L2 AND (object ADJ oriented OR Object-oriented)	20

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IBM Technical Disclosure Bulletins

**Search:**

L3

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side by side

**Hit Count Set Name**

result set

*DB=USPT; PLUR=NO; OP=OR*

<u>L3</u>	L2 AND (object ADJ oriented OR Object-oriented)	20	<u>L3</u>
<u>L2</u>	L1 AND control ADJ system	661	<u>L2</u>
<u>L1</u>	gordon.xp. OR gordon.xa.	3046	<u>L1</u>

END OF SEARCH HISTORY